



# USE CASE STUDY

## Products Over Data

Department of Agriculture (USDA)

*Economic Research Service*



# Mission of the USDA Economic Research Service (ERS)

*The Economic Research Service (ERS) supports USDA and is the main source of economic information and research*

# ERS

## MISSION STATEMENT

*To inform and enhance public and private decision making on economic and policy issues related to agriculture, food, the environment, and rural development.*

## FOUR GOALS OF THE USDA

1



Rural  
Communities

Assist **rural communities** to create prosperity so they are self-sustaining, repopulating, and economically thriving;

2



Working  
Lands

Ensure our **working lands** are conserved, restored, and made more resilient to climate change, while enhancing our water resources;

3



Food  
Security

Help America promote **agricultural production** and biotechnology exports as America works to increase food security;

4



Food  
Access

Ensure that all of America's **children have access to safe, nutritious, and balanced meals.**

# Challenges with Data Overload

*USDA ERS focuses on three objectives...*

*...leading to a growing list of data sources and formats...*

*...leading to the inability fully fund each potential project.*

## OBJECTIVES

- Economic research
- Statistical indicators
- Economic analysis

## DATA TOPICS

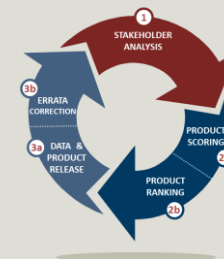
- Animal Products
- Crops
- Farm Economy
- Farm Practices & Management
- Food & Nutrition Assistance
- Food Choices & Health
- Food Markets & Prices
- Food Safety
- International Markets & Trade
- Natural Resources & Environment
- Rural Economy & Population

## CHALLENGE

- Investment opportunities may be underfunded or unfunded, resulting in underachieved objectives.
- In addition, larger infrastructure requirements can be difficult to maintain and keep up-to-date, leading to lower functionality.

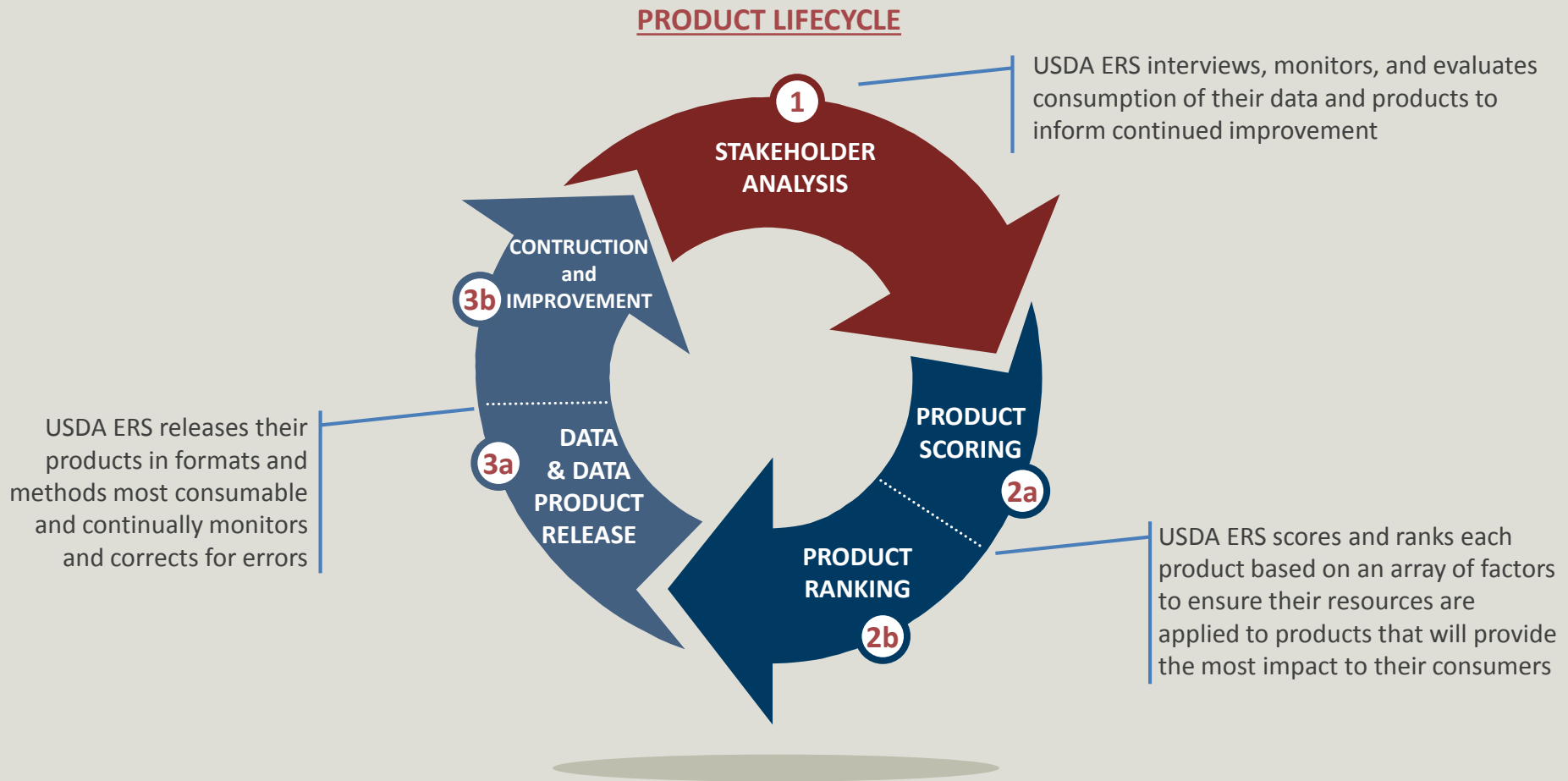
## ERS'S SOLUTION

*To address these key challenges, USDA ERS focused on the needs of their stakeholders and developed a data product lifecycle that maximized their collective delivered value.*



# USDA ERS's Product Lifecycle

*To ensure investments were made effectively, USDA ERS created a data product lifecycle to continually monitor its products and ensure they remained relevant to their stakeholders*

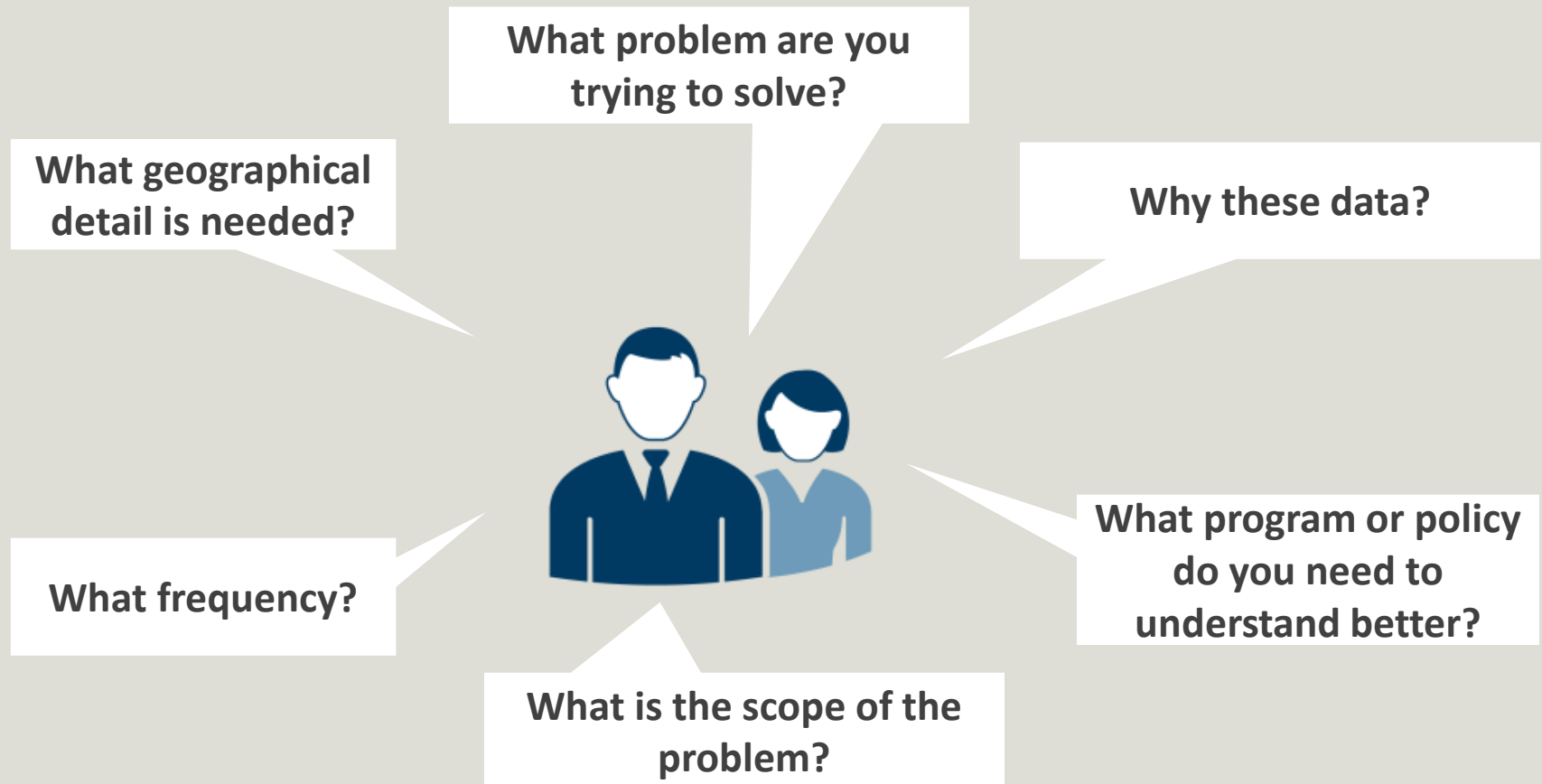


The rate a product goes through this process depends on its value, as higher value products complete the cycle quicker.

# Packaging Data to Engage Stakeholders

*USDA ERS packages data into publications by first understanding who their stakeholders are and how they intend to consume their data*

## USDA ERS Stakeholder Questions *sample set*



# Prioritize Relevant Data Based on Stakeholder Demand

*In order to use resources effectively, USDA ERS is constantly reviewing their products to confirm they remain relevant to their stakeholders*

## DATA PRODUCT CHECKLIST

ERS Data Product Quality Attributes and Standards Evaluation Checklist

Data Product: \_\_\_\_\_

Completed by: (WFO) \_\_\_\_\_

Date: \_\_\_\_\_

Summary of Findings:

(Right-click on Yes/No/Not Required/Yes to change bullet from a blank box to a check mark)

1. Purpose				
Checklist Item	Yes	No	Not Required	Comments
1.1 MRO for data provided to others?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.2 MRO for data received from others?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Utility				
Checklist Item	Yes	No	Not Required	Comments
2.1 ERS is the Preeminent or Data Source?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## QUALITY CRITERIA

USDA ERS uses multiple criteria to rank data products in terms of adherence with the OMB and USDA definitions of Influential Scientific, Financial, or Statistical Information and in accordance with their importance to the agency's mission.

The *ERS Data Product Quality Attributes and Standards Evaluation Checklist* includes a total of 25 questions in the following categories:

- **Purpose:** Mandates and usability for USDA
- **Utility:** Frequency, Sole Source, ERS Web Usage, Impact, Product Type and Relevancy
- **Objectivity:** Pre-Dissemination Reviews
- **Transparency:** Meta Data, Calendar, Documentation Methods
- **Integrity:** Record Archival, Data Privacy, Confidentiality
- **Accessibility:** Output Format, Open Data Compliant

These standards ensure that quality information and data are provided to key stakeholders and the public.

# Prioritize Relevant Data Based on Stakeholder Demand

*In order to use resources effectively, USDA ERS is constantly reviewing their products to confirm they remain relevant to their mission and stakeholders*

## Premier Data Products

Determined by senior ERS management to be influential and central to the agency's mission, as well as adhering to all components of quality guidelines as applicable



## Other Data Products

Products that serve key agency stakeholders and the public



## Core Data Products

Central to the agency's mission but may not meet the definition of influential. Also in this category are foundational data (as mentioned in the ERS Strategic Plan), such as data that are inputs to premier data products



## Discontinued Data Products

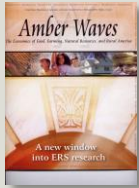
Products that are ranked lower are archived



# Releasing Data Products Through Multiple Channels

USDA ERS disseminates its information to key stakeholders and the public through an array of outlets, including the ERS website ([www.ers.usda.gov](http://www.ers.usda.gov)) and @USDA\_ERS

## SELECTED SET OF PUBLICATION CHANNELS



A magazine, *Amber Waves*, covering the entire range of ERS work (available online)



Apps developed for mobile devices



The website, which provides access to all ERS products and which links users directly with ERS analysts



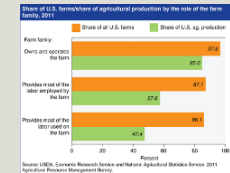
Agency-published Articles in professional journals, and papers presented to academic colleagues at conferences and meetings



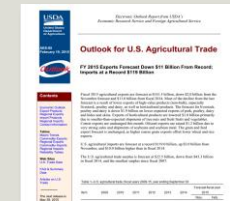
USDA contributes their products to Data.Gov



Oral briefings, written staff analyses, and congressionally mandated studies delivered directly to executive and legislative branch policymakers and program administrators



Data visualization methods, including Charts of Note and geospatial mapping services



Agency-published research reports, market analysis and outlook reports, economic briefs, and data products



Open Data Application Programming Interfaces (APIs)



# Responding to Customer Feedback

*Any substantive errors detected by USDA ERS or their stakeholders are listed on the Errata page along with the corrective action.*

- If the information in question is factually incorrect, or presented in a manner that is subject to misinterpretation by the reader, a correction statement will be issued on the Errata page and in the report itself.
- ERS data products (tables, dynamic applications, and interactive maps) will be corrected as soon as possible after an error is discovered.
- A correction notice will be posted on the Errata page and on any files (Excel, HTML, PDF) containing the corrected data. The notices will remain with the data until the next update.

## ERS's ERRATA PAGE

The screenshot shows the USDA ERS website with the 'Errata' page selected. The page features a navigation bar with links to Topics, Data, Publications, Newsroom, and Calendar. Below the navigation bar, there is a search bar and a 'Stay Connected' section with social media icons. The main content area is titled 'ERS Error Correction Policy' and includes an 'Overview' section and a list of 'Topics' such as Animal Products, Crops, Farm Economy, Farm Practices & Management, Food & Nutrition Assistance, Food Choices & Health, Food Markets & Prices, Food Safety, International Markets & Trade, Natural Resources & Environment, and Rural Economy & Population. The 'Errata' section contains a table with the following data:

Errata ID	Date Added	Title	Content Type	Report Number	Description
121	4/30/2015	State Export Data	Data product	N/A	On April 29, 2015, State Export Data were reissued to correct an error in the calculation of the "Other plant products" category for each State. The original estimates inadvertently omitted tobacco as a component of this category, and as a result, export totals for each State as well as the reported exports of "Other plant products" were incorrect. The data released on April 6 corrects this error, and report tobacco exports as an independent category.
120	4/21/2015	Livestock, Dairy, and Poultry Outlook: April 2015	Publication	LDPM-250	On April 21, page 4 of the Livestock, Dairy, and Poultry Outlook, the weekly Choice beef cutout value was corrected to report that the values advanced to \$257.50 on April 10.
119	4/20/2015	Additionality in U.S. Agricultural Conservation and Regulatory Offset Programs	Publication	ERR-170	On April 20, the estimate for adoption of soil conservation structures for payment farms in Table 4 on page 16 was corrected. The entry for "Estimated without payment" for soil conservation structures is 0.18.
118	4/9/2015	Measuring Access to Healthful, Affordable Food in American Indian and Alaska Native Tribal Areas	Publication	EIB-131	On April 9, 2015, the estimate for average distance from a grocery for all tribal areas in Table 2 on page 13 was corrected to fix a calculation error. References to the number in the text on pages 13-16 were updated to reference the revised number. The references to the estimate for population share and population percentiles for all

# Lessons Learned

*Frequent communication with stakeholders ensures usability, relevance, and timeliness. A deep understanding of their stakeholder needs has allowed USDA ERS to meet their needs.*



***Ranking products*** allows USDA ERS to allocate its resources toward those that are most important or critical to their key users.

***Assessing product utilization*** is critical to gauging the value of the data to their stakeholders and in what format data are needed.

External, independent ***reviews of data and data products*** and ***rich documentation*** provide stakeholders and users solid information and confidence in the data and data products.



## FEDERAL CIO COUNCIL

*For more information contact the  
Innovation Committee at  
[feedback@cio.gov](mailto:feedback@cio.gov)*

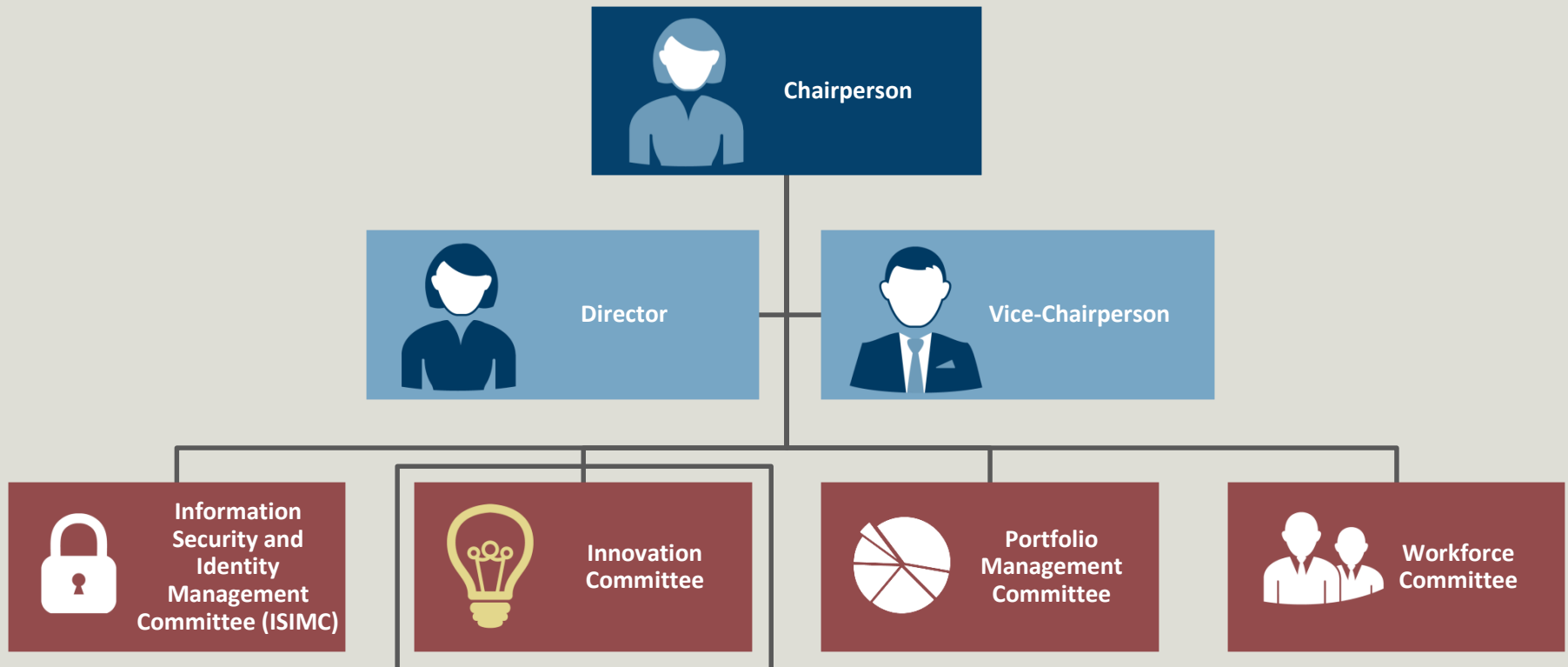


# The Federal CIO Council

*The Federal CIO Council is the principal interagency forum on Federal agency practices for IT management*



*The **Federal CIO Council** mission is to improve practices related to the design, acquisition, development, modernization, use, sharing, and performance of Federal Government information resources.*



# The Innovation Committee

*The Federal CIO Council created the Innovation Committee to enable Agency mission delivery, improve customer service, maximize return-on-investment, and support emerging IT needs.*



The **Innovation Committee** focuses on relevant topics such as the use of modern technologies to deliver digital services to citizens and businesses, deployment of mobile technology within Government, modular IT development strategies, and using Federal data as a strategic resource to enable Agency mission delivery and to grow the economy.



For more information on the Federal CIO Council, the Innovation Committee, or products and resources, visit **<https://CIO.gov>**.